



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA16553M

This is to certify that the undernoted product(s) has/have been approved in accordance with the requirements specified in Chapter 1, Part 7 of "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use" and the relevant Society's Rules.

This certificate is issued to

Manufacturer:	Siemens AG
Place of Manufacturing:	Ostliche Rheinbruckenstr. 50, 76187 Karlsruhe, Germany
Product description:	Programmable Electronic System
Model:	SIMATIC NET
Approval No.:	01A034
Valid until:	5 November 2018

This certificate is subject to the conditions specified in the attached sheet(s).

Issued at Tokyo on 19 October 2016.



Y. Shibata
General Manager
Machinery Department

Note: 1. This certificate has been issued due to the addition of new components.

2. The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

NIPPON KAIJI KYOKAI

Attached sheet -1/8 to the Certificate No. TA16553M

Specification & documents:

1. Particulars: Power supply: AC 100 - 240V, 50/60Hz
DC 24V

2. Components and reference drawings:

(1)Components

Components	Type	
IE/PB Link PN IO	6GK1	411-5AB00 (1), (7), (15), (27) 411-5AB10 (2), (8), (15), (27)
BUSTERMINAL (OBT)	6GK1	500-0AA10 (2), (8), (16), (27) 500-3AA10 (2), (8), (13), (16), (28)
Optical Link modules	6GK1	503-2CA00 (2), (3), (8), (9), (13), (17), (27) 503-2CA01 (3), (9), (13), (17), (27), (28) 503-2CB00 (2), (3), (8), (9), (13), (17), (27), (28) 503-2CC00 (2), (8), (13), (17), (27), (28) 503-3CA00 (2), (3), (8), (9), (13), (17), (27) 503-3CA01 (2), (3), (8), (9), (13), (17), (27), (28) 503-3CB00 (2), (3), (8), (9), (13), (17), (27), (28) 503-3CC00 (2), (8), (17), (27), (28) 503-3CD00 (2), (3), (8), (9), (13), (17), (27), (28) 503-4CA01 (3), (9), (13), (17), (27), (28)
FASTCONNECT	6GK1	901-1BE00-0AA3 (28)
SCALANCE X	6GK5	005-0BA00-1AA3 (28) 005-0BA00-1CA3 (28) 101-1BB00-2AA3 (2), (8), (13), (18), (28) 101-1BC00-2AA3 (2), (8), (13), (18), (28) 104-2BB00-2AA3 (2), (8), (13), (18), (28) 106-1BB00-2AA3 (2), (8), (13), (18), (28) 108-0BA00-2AA3 (2), (8), (13), (19), (28) 108-0PA00-2AA3 (2), (8), (13), (20), (28) 112-2BB00-2AA3 (2), (8), (13), (18), (28) 116-0BA00-2AA3 (2), (8), (13), (18), (28) 124-0BA00-2AA3 (2), (8), (13), (18), (28) 202-2BB00-2BA3 (2), (3), (8), (9), (13), (18), (28) 204-0BA00-2AF2 (2), (8), (13), (28) 204-0BA00-2BA3 (2), (8), (13), (18), (28) 204-0BA00-2BF2 (2), (8), (13), (18), (28) 204-0BS00-2NA3 (18), (27) 204-0BS00-3LA3 (18), (27) 204-0BS00-3PA3 (18) 204-0JA00-2BA6 (2), (8), (13), (18), (28) 204-2BB11-2AA3 (3), (9), (13), (21), (28) 204-2BC00-2AF2 (2), (3), (8), (9), (13), (18), (28)

- To be continued -

Components	Type	
SCALANCE X	6GK5	204-2BC10-2CA2 (2), (8), (13), (18), (28)
		206-1BC00-2AF2 (2), (3), (8), (9), (13), (28)
		208-0BA00-2AF2 (2), (8), (13), (28)
		212-2BB00-2AA3 (2), (3), (8), (9), (13), (18), (28)
		212-2BC00-2AA3 (2), (8), (13), (18), (28)
		216-0BA00-2AA3 (2), (8), (13), (18), (28)
		224-0BA00-2AA3 (2), (8), (13), (18), (28)
		302-7GD00-1EA3 (2), (8), (18), (27)
		302-7GD00-1GA3 (2), (8), (18), (27)
		302-7GD00-2EA3 (2), (8), (18), (27)
		302-7GD00-2GA3 (2), (8), (18), (27)
		302-7GD00-3EA3 (27)
		302-7GD00-3GA3 (27)
		302-7GD00-4EA3 (27)
		302-7GD00-4GA3 (27)
		304-2BD00-2AA3 (2), (8), (13), (18), (28)
		306-1BF00-2AA3 (2), (8), (13), (18), (28)
		307-2FD00-1EA3 (2), (8), (18), (27)
		307-2FD00-1GA3 (2), (8), (18), (27)
		307-2FD00-2EA3 (2), (8), (18), (27)
		307-2FD00-2GA3 (2), (8), (18), (27)
		307-2FD00-3EA3 (27)
		307-2FD00-3GA3 (27)
		307-2FD00-4EA3 (27)
		307-2FD00-4GA3 (27)
		308-2GG00-2AA2 (2), (8), (13), (18), (28)
		308-2QG00-2AA2 (2), (8), (13), (18), (28)
		320-1BD00-2AA3 (2), (8), (13), (18), (28)
		320-3BF00-2AA3 (2), (8), (13), (18), (28)
		324-0GG00-1AR2 (2), (8), (13), (18), (28)
		324-0GG00-1HR2 (2), (8), (13), (18), (28)
		324-0GG00-3HR2 (27)
		324-4GG00-1ER2 (2), (8), (13), (18), (28)
		324-4GG00-1JR2 (2), (8), (13), (18), (28)
		324-4GG00-2ER2 (2), (8), (13), (18), (28)
		324-4GG00-2JR2 (2), (8), (13), (18), (28)
		324-4GG00-3ER2 (27)
		324-4GG00-3JR2 (27)
		324-4GG00-4ER2 (27)
		324-4GG00-4JR2 (27)
		324-4QG00-1AR2 (2), (8), (13), (18), (28)
		324-4QG00-1HR2 (2), (8), (13), (18), (28)
		324-4QG00-3AR2 (27)

Components	Type	
SCALANCE X	6GK5	324-4QG00-3HR2 ⁽²⁷⁾ 400-8AS00-8AP2 (2), (8), (13), (18), (27), (28) 408-0GA00-8AP2 (2), (8), (13), (18), (27), (28) 408-0PA00-8AP2 (2), (8), (13), (18), (27), (28) 408-4GP00-2AM2 (2), (8), (13), (18), (27), (28) 408-4GQ00-2AM2 (2), (8), (13), (18), (27), (28) 408-8GR00-2AM2 (2), (8), (13), (18), (27), (28) 408-8GS00-2AM2 (2), (8), (13), (18), (27), (28) 416-4GR00-2AM2 (2), (8), (13), (18), (27), (28) 416-4GS00-2AM2 (2), (8), (13), (18), (27), (28) 524-8GR00-2AR2 (2), (8), (13), (22), (28) 524-8GR00-3AR2 ⁽²⁸⁾ 524-8GR00-4AR2 ⁽²⁸⁾ 524-8GS00-2AR2 (2), (8), (13), (22), (28) 524-8GS00-3AR2 ⁽²⁸⁾ 524-8GS00-4AR2 ⁽²⁸⁾ 526-8GR00-2AR2 (2), (8), (13), (28) 526-8GR00-3AR2 ⁽²⁸⁾ 526-8GS00-4AR2 ⁽²⁸⁾ 526-8GS00-2AR2 (2), (8), (13), (28) 526-8GS00-3AR2 ⁽²⁸⁾ 526-8GS00-4AR2 ⁽²⁸⁾ 528-0AA00-2AR2 (2), (8), (13), (18), (28) 528-0AA00-2HR2 (2), (8), (13), (18), (28) 528-0AR00-2AR2 (2), (8), (13), (18), (28) 528-0AR00-2HR2 (2), (8), (13), (18), (28)
SCALANCE S	6GK5	602-0BA10-2AA3 (2), (8), (13), (18), (27), (28) 612-0BA10-2AA3 (2), (8), (13), (18), (27), (28) 613-0BA00-2AA3 (2), (8), (13), (18), (28) 615-0AA00-2AA2 (2), (8), (13), (18), (28) 623-0BA10-2AA3 (2), (8), (13), (18), (27), (28) 627-2BA10-2AA3 (2), (8), (13), (18), (27), (28)
SCALANCE W (Industrial WLAN)	6GK5	734-1FX00-0AA0 (2), (8), (13), (18), (28) 734-1FX00-0AB0 (2), (8), (13), (18), (28) 748-1FC00-0AA0 (2), (8), (13), (18), (28) 748-1FC00-0AB0 (2), (8), (13), (18), (28) 748-1GD00-0AA0 (2), (8), (13), (18), (28) 748-1GD00-0AB0 (2), (8), (13), (18), (28) 774-1FX00-0AA0 (2), (8), (13), (18), (28) 774-1FX00-0AB0 (2), (8), (13), (18), (28) 774-1FY00-0TA0 (2), (8), (13), (18), (28) 774-1FY00-0TB0 (2), (8), (13), (18), (28) 788-1FC00-0AA0 (2), (8), (13), (18), (28)

Components	Type	
SCALANCE W (Industrial WLAN)	6GK5	788-1FC00-0AB0 (2), (8), (13), (18), (28) 788-1GD00-0AA0 (2), (8), (13), (18), (28) 788-1GD00-0AB0 (2), (8), (13), (18), (28) 788-2FC00-0AA0 (2), (8), (13), (18), (28) 788-2FC00-0AB0 (2), (8), (13), (18), (28) 788-2FC00-1AA0 (2), (8), (13), (18), (28) 788-2GD00-0AA0 (2), (8), (13), (18), (28) 788-2GD00-0AB0 (2), (8), (13), (18), (28) 788-2GD00-0TA0 (2), (8), (13), (18), (28) 788-2GD00-0TB0 (2), (8), (13), (18), (28) 788-2GD00-1AA0 (2), (8), (13), (18), (28) 788-2GD00-1TA0 (2), (8), (13), (18), (28)
SCALANCE W (ACCESORY)	6GK5	791-1PS00-0AA6 ⁽²⁹⁾ 791-2AC00-0AA0 (2), (8), (26), (29) 795-6DC00-0AA0 795-6MN01-0AA6 795-6MN10-0AA6 795-6MT00-0AA0
SCALANCE M	6GK5	826-2AB00-2AB2 (2), (8), (13), (18), (28)
SCALANCE X (ACCESARY)	6GK5	991-1AD00-8AA0 (2), (8), (13), (18), (28) 991-1AE00-8AA0 (2), (8), (13), (18), (28) 991-1AF00-8AA0 (2), (8), (13), (18), (28) 991-2AB00-8AA0 (2), (3), (8), (9), (13), (18), (28) 991-2AB01-8AA0 (2), (8), (13), (18), (28) 991-2AC00-8AA0 (2), (8), (13), (18), (28) 991-2AD00-8AA0 (2), (8), (13), (18), (28) 991-2AE00-8AA0 (2), (8), (13), (18), (28) 991-2AF00-8AA0 (2), (8), (13), (18), (28) 991-2AH00-8AA0 (2), (8), (13), (18), (28) 991-4AB00-8AA0 (2), (8), (13), (18), (28) 991-4AC00-8AA0 (2), (8), (13), (18), (28) 992-1AL00-8AA0 (2), (8), (13), (18), (28) 992-1AM00-8AA0 (2), (8), (13), (18), (28) 992-1AN00-8AA0 (2), (8), (13), (18), (28) 992-1AP00-8AA0 (2), (8), (13), (18), (28) 992-1AQ00-8AA0 (2), (8), (13), (18), (28) 992-2AL00-8AA0 (2), (8), (13), (18), (28) 992-2AM00-8AA0 (2), (8), (13), (18), (28) 992-2AN00-8AA0 (2), (8), (13), (18), (28) 992-2AP00-8AA0 (2), (8), (13), (18), (28) 992-2AQ00-8AA0 (2), (8), (13), (18), (28) 992-2AS00-8AA0 (2), (8), (13), (18), (28) 992-2GA00-8AA0 (2), (8), (13), (18), (28)

SCALANCE X (ACCESARY)	6GK5	992-2SA00-8AA0 (2), (8), (13), (18), (28) 992-2VA00-8AA0 (2), (8), (13), (18), (28) 992-4AL00-8AA0 (2), (8), (13), (18), (28) 992-4AM00-8AA0 (2), (8), (13), (18), (28) 992-4AS00-8AA0 (2), (8), (13), (18), (28) 992-4GA00-8AA0 (2), (8), (13), (18), (28) 992-4SA00-8AA0 (2), (8), (13), (18), (28) 993-1AT00-8AA0 (2), (8), (13), (18), (28) 993-1AU00-8AA0 (2), (8), (13), (18), (28) 993-1AV00-8AA0 (2), (8), (13), (18), (28)
COMMUNICATION MODULES 1200	6GK7	242-5DX30-0XE0 (4), (10), (14), (23), (27) 243-5DX30-0XE0 (4), (10), (14), (23), (27)
COMPACT SWITCH MODULES	6GK7	277-1AA10-0AA0 (4), (10), (17), (27) 377-1AA00-0AA0 (1), (7), (14), (24), (27)
COMMUNICATION PROCESSOR	6GK7	442-1RX00-0XE0 (5), (11), (14), (16), (27) 443-1RX00-0XE0 (5), (11), (14), (16), (27)
COMMUNICATION MODULES 1500	6GK7	542-1AX00-0XE0 (6), (12), (14), (25), (27)

3. Documentation and Test Reports:

- Catalog

Catalog ST 70·1999, Catalog ST 70·News 2000, Catalog ST 80·1999, CA 01 04/00SED,
C79000-G8976-C199-01, C79000-G8976-C184-02, A5E00288912-02, A5E00349864 Release 2,
Siemens IK PI-2005, C79000-G8976-C186-01, C79000-G8900-C196-01

- Manual

A5E00349864, A2B00065774D, A2B00051521A, C79000-G8976-C186, A5E01048819-01,
A5E01113043-10, A2B00073499E, BA_SCALANCE-X-200_76,
BA_SCALANCE-X-200RNA_76, BA_SCALANCE-X-300_76, BA_SCALANCE-XM400_76,
BAK_SCALANCE-MM900_76, IMH_SCALANCE-S_76_en-S6xx,
BAK_SCALANCE-XR-500M_76_en-US, BA_SCALANCE-W7x8_76,
BA_SCALANCE-W770-W730_76, GH_CM1542-1_76, GH_CP442-1-RNA_76,
GH_CP443-1-RNA_0_de-DE

-Technical data

BA_SCALANCE-MM991_MM992, BA_SCALANCE-PE400_PE408, BA_SCALANCE-W7x8
BA_SCALANCE-W774_W734, BA_SCALANCE-X204, BA_SCALANCE-X204RNA,
BA_SCALANCE-X-300, BA_SCALANCE-XM416_XM408,
BAK_SCALANCE-XR-500M_76, CP553-1-RNA, GH_CM1542-1, GH_CP442-1-RNA_76,
IMH_SCALANCE-S602_S612_S623_S627

3. Documentation and Test Reports:

-Test Reports:

- A&D AS E423-0102, A&D AS RD ST Type Test-02/05, A&D ATS 6/05-M0601798-A1
- A&D AS RD ST Type Test-11/2005, A&D AS RD ST Type Test-0606
- A&D AS RD ST Type Test-08/07
- 11A AS RD ST Type Test report No. 2008-K035-HV-01, -02, -03, -04, -05
- 11A AS RD ST Type Test-2011-02
- Information for flame retardant according UL746C chapter 17
- Marine Test COMMUNICATION MODULE and PROCESSOR
- Marine Test Report SCALANCE S_X
- Marine Test Report SCALANCE W_IWLAN
- ATEX – Certificate Kema: ⁽¹⁾03ATEX1228 X, ⁽²⁾07ATEX0145 X, ⁽³⁾11ATEX0060X,
- ATEX – Certificate Kema: ⁽⁴⁾10ATEX0166 X, ⁽⁵⁾03ATEX1125 X, ⁽⁶⁾12ATEX0240 X
- IECEX – Certificate: ⁽⁷⁾IECEX DEK 14.0086X, ⁽⁸⁾IECEX DEK 14.0025X,
- IECEX – Certificate: ⁽⁹⁾IECEX DEK 14.0026X, ⁽¹⁰⁾IECEX DEK 14.0088X,
- IECEX – Certificate: ⁽¹¹⁾IECEX DEK 14.0034X, ⁽¹²⁾IECEX DEK 14.0089X
- UL HAZ LOC Certificate: ⁽¹³⁾E240480, ⁽¹⁴⁾E223122
- FM - Certificate of Compliance: ⁽¹⁵⁾3021907, ⁽¹⁶⁾3002335, ⁽¹⁷⁾3029393, ⁽¹⁸⁾3021712,
- FM - Certificate of Compliance: ⁽¹⁹⁾3026108, ⁽²⁰⁾3021908, ⁽²¹⁾3029875, ⁽²²⁾3045898
- FM - Certificate of Compliance: ⁽²³⁾3040919, ⁽²⁴⁾3032236, ⁽²⁵⁾3047741, ⁽²⁶⁾3030671
- UL Certificate: ⁽²⁷⁾E85972, ⁽²⁸⁾E115352, ⁽²⁹⁾E249351

4. Installation

- OSM/ESM: Montage only with S7-300 profile rail or wall mounting
- Scalance 6GK5 744/788/414/491/492/495/496/786/784 :
Montage only with S7-300 profile rail or wall mounting possible
- Modular Outlet: Montage with mounting rail 35mm or wall mounting possible
- Scalance 6GK5 104-2, 106-1, 108, 208, 202-2 IRT, 101, 005, 112, 116, 124, 212, 216, 224, 307, 308, 310 and power supply :
Montage with S7-300 profile rail, mounting rail 35mm or wall mounting
- IE/PB Link: Montage only with S7-300 profile rail
- OLM: Montage with mounting rail 35mm
- Scalance 6GK5 408: Montage with S7-300 profile rail or mounting rail 35mm

- To be continued -

Test items & approval conditions:

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature 70°C × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration $\pm 1.0g \times 1.5$ hours for OBT, BT, OSM, ESM, $\pm 0.7g \times 1.5$ hours for others)		X
Inclination test		--
Cold test (Temperature -25°C × 16 hours)		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X
Flame retardant test		--

- To be continued -

2. Approval condition:

- (1) The products are allowed to be installed in general power distribution zone.
The products 6GK5 991/992, all SCALANCE W (IWLAN), 6GK542/602/612/623/627 are allowed to be installed in bridge and deck zone.
- (2) 6GK 542/602/612/623/627 fulfils the EMC requirements for installation on bridge and deck Zone with filter EPCOS B84113-C- B30 or equivalent.
- (3) The products are not allowed to be installed in the open decks.
- (4) Where Scalance, Power Supply (6GK5 791), Modular Outlet (6GK1 901) and IE/PB Link (6GK1 411) are used in the bridge or open decks, these modules are to be connected to the filter, which has the following characteristics.
($I = 3A$, $C = 2 \times 0.47\mu F + 2 \times 4700pF$, $L = 4 \times 4.7mH$)
- (5) Scalance 6GK5 744/788 are only to be used in an environment where the Wireless LAN communication does not interfere with other equipment or systems.
- (6) Security Modules 6GK5 602/612/613 are only to be used with Ferrit 24V DC. Type: 74271222, Manufacturer: Wuerth
- (7) 24V/230V power supply lines are to be protected by Dehn Blitzductor order No.918 402 (tested) or equivalent.

- The End -